

#### ABSTRACT OF THE DISCLOSURE

Beams are irradiated in three directions by switching an irradiation direction of a mainlobe of an antenna by stages, and an echo is received from a detection object obtained in the mainlobe or a sidelobe in each irradiation direction. Then, reflection power intensity in each irradiation direction is found from the received echo, and pattern of relative variation of the reflection power intensity (power intensity pattern) in each irradiation direction is generated. Meanwhile, a detection region is divided into seven bearings "c" to "i" and a power intensity pattern when an object exists in each bearing is previously stored as a reference pattern in each bearing. Then, the bearing in which the detection object exists is specified by comparing the power intensity pattern obtained from the received echo with the reference pattern in each bearing.